

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-56 are currently pending, Claims 1, 2, 4-14, 19-43, and 47-56 having been amended. The changes and additions to the claims do not add new matter and are supported by the originally filed specification, for example, on page 73, line 12 to page 74, line 13; page 77, line 23 to page 78, line 3; and page 103, lines 13-16.

In the outstanding Office Action, Claims 1, 14, 22, 30, 43, and 50 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite; Claims 22 and 50 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter; Claims 1-4, 6-9, 12-17, 20-25, 28-32, 35-38, 41-45, 48-52, 55, and 56 were rejected under 35 U.S.C. §103(a) as unpatentable over Hind et al. (U.S. Patent No. 7, 069,452, hereafter “Hind”) in view of Kidder et al. (U.S. Patent No. 6,880,086, hereafter “Kidder”); Claims 5, 11, 19, 27, 34, 40, 47, and 54 were rejected under 35 U.S.C. §103(a) as unpatentable over Hind in view of Kidder and Raduchel et al. (U.S. Patent No. 6,338,138, hereafter “Raduchel”); and Claims 10, 18, 26, 33, 39, 46, and 53 were rejected under 35 U.S.C. §103(a) as unpatentable over Hind in view of Kidder and Bealkowski et al. (U.S. Patent No. 5,878,256, hereafter “Bealkowski”).

Applicants thank the Examiner for the courtesy of an interview extended to Applicants’ representatives on December 19, 2007. During the interview, the outstanding rejections were discussed as well as the differences between the claims and the applied art. Further, clarifying claim amendments, similar to those presented herewith were also discussed. In addition, the Examiner indicated that the claim amendments appear to overcome the applied art. The arguments presented during the interview are similar to those that follow.

With respect to the rejection of Claims 1, 14, 22, 30, 43, and 50 under 35 U.S.C. §112, second paragraph, Applicant respectfully submits that the amendments to Claims 1, 14, 22, 30, 43, and 50 remove the term “capable,” which overcomes this ground of rejection.

With respect to the rejection of Claims 22 and 50 under 35 U.S.C. §101, Applicant respectfully submits that the amendments to Claims 22 and 50, to recite a computer readable storage medium, overcomes this ground of rejection.

With respect to the rejection of Claim 1 under 35 U.S.C. §103(a), Applicant respectfully submits that the amendment to Claim 1 overcomes this ground of rejection.

Amended Claim 1 recites, *inter alia*,

a certification information setting unit configured to generate a first certification information, and transmit the first certification information to the target update device via a first communication protocol over the network...

a transmitting unit configured to transmit an update software that updates a software of the target update device to the target update device via a second communication protocol over the network when the certification process succeeds via the first communication protocol, the second communication protocol having a process load less than that of the first communication protocol.

Figure 1 shows a non-limiting embodiment of these features where a software update device (intermediary device 101) is configured to communicate with a target update device (10) over a network. Figure 17 shows that software update device (intermediary device 101) has a certificate information setting unit that transmits first certification information (one-time password) to the target update device within a secure socket layer (SSL) (first communication protocol) mutual certification process using the SSL protocol (see specification, page 73, line 12 to page 74, line 13). After the certification process succeeds using the SSL protocol, the software update device transmits updated software (see Figure 17, step S112) to the target update device using the file transfer protocol (FTP) (second

communication protocol). The FTP protocol has a process load less than that of SSL (see specification, page 77, line 23 to page 78, line 3).

Thus, in the invention defined by Claim 1, the certification is performed with a first communication protocol, and transfer of the update software is performed with a second communication protocol. Particularly, the second communication protocol has a process load less than that of the first communication protocol.

Hind describes a method for providing secure firmware updates to a device. In Hind, the update data for updating the firmware is provided in an “image” which is digitally signed or encrypted using, for example, an asymmetric key cryptosystem (see col. 11, lines 13-34). Hind describes multiple ways in which the encrypted image is received by the device, including loading it from a disk or storing it in RAM (see col. 12, lines 24-28). In Hind, the encrypted image must be verified within the device before it is taken from a temporary location within the device, such as RAM, and then used to update the firmware in the device’s programmable memory (see Figure 3 and col. 11, lines 13-24). Hind does not disclose or suggest that the certification is performed with a first communication protocol, and the transfer of the update software is performed with a different second communication protocol, wherein the second communication protocol has a process load less than that of the first communication protocol.

The Office Action does not indicate which device in Hind corresponds to the claimed software update device. Additionally, the Office Action takes the position that “a person wishing to receive secure data generates a pair of corresponding encryption and decryption keys” (see Hind, col. 11, lines 27-29) corresponds to both the claimed certification information setting unit and the claimed certification requesting unit. However, this portion of Hind does not refer to a specific device that generates certification information. Furthermore, generating a pair of corresponding encryption and decryption keys is not the

same as generating a first certification information, and transmitting the first certification information to a target update device via a first communication protocol over a network, as defined by Claim 1.

The Office Action also cites a portion of Hind that describes how providing an image of the updated firmware into a programmable memory of a device corresponds to the claimed transmitting unit (see Hind, col. 11, lines 18-20). First, the Office Action does not define which element in Hind corresponds to the claimed transmitting unit. Furthermore, placing an image into a programmable memory is not the same as transmitting an update software to the target update device via a second communication protocol over the network when the certification process succeeds via the first communication protocol, as defined by Claim 1.

Additionally, as discussed above, Hind is directed towards performing the certification of the update software image from within the target update device itself. Accordingly, Hind fails to disclose or suggest a first communication protocol and a second communication protocol used between a software update device and a target update device over a network.

Therefore, Hind fails to disclose or suggest a software update device that includes a certification information setting unit configured to generate a first certification information, and transmit the first certification information to the target update device via a first communication protocol over the network, and a transmitting unit configured to transmit an update software that updates a software of the target update device to the target update device via a second communication protocol over the network when the certification process succeeds via the first communication protocol, as defined by Claim 1.

Kidder was relied upon by the Office Action to remedy the deficiencies of Hind by disclosing a second communication path as recited in original Claim 1. Kidder shows in Figure 1 a device 16a that has a first Ethernet connection 32 and a second Ethernet

connection 34 with device 12 (see col. 9, lines 20-23). The Office Action took the position that the second Ethernet connection 34 corresponded to the second communication path of original Claim 1. However, separate Ethernet connections are not the same as first and second communication protocols. Thus, Kidder fails to disclose or suggest the first and second communication protocols, as defined in amended Claim 1.

Therefore, the combination of Kidder and Hind fails to disclose or suggest all the features of amended Claim 1.

Raduchel and Bealkowski have been considered but fail to remedy the deficiencies of Hind as discussed above in regards to amended Claim 1.

Therefore, amended Claim 1 patentably distinguishes over Hind, Kidder, Raduchel and Bealkowski, taken alone or in proper combination.

Amended Claims 8, 14, 22, 30, 37, 43, and 50 recite features similar to those of amended Claim 1. Therefore, amended Claims 8, 14, 22, 30, 37, 43, and 50 patentably distinguish over Hind, Kidder, Raduchel and Bealkowski, taken alone or in proper combination.

Consequently, in light of the above discussion and in view of the present amendment, the outstanding grounds for rejection are believed to have been overcome. The present application is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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